Formed Fiber Technologies, Inc. **Androscoggin County** **Auburn, Maine** **A-678-71-J-R/A**	**Departmental** **Findings of Fact and Order** **Air Emission License**

After review of the air emissions license renewal/amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

~~1.~~Formed Fiber Technologies, Inc. (FFT) of Auburn, Maine has applied to renew their Air Emission License, permitting the operation of emission sources associated with their non-woven fiber products facility.

Included in this renewal is the addition of a new thermobonder production line which results in an increase in fuel use as well as an increase in product production. The facility's existing fiberbed scrubber will be used to control emissions from this new unit.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Fuel Burning Equipment

Equipment	**Maximum Capacity (MMBtu/hr)**	**Maximum Firing Rate**	**Fuel Type, % sulfur**	**Stack #**
Space Heater #1	4.0	3,810 scf/hr	natural gas, neg.	none
Space Heater #2	4.0	3,810 scf/hr	natural gas, neg.	none
Space Heater #3	3.24	3,090 scf/hr	natural gas, neg.	none
Molding Line K-2	4.0	3,810 scf/hr	natural gas, neg.	Kiefel #2
Molding Line K-4	4.0	3,810 scf/hr	natural gas, neg.	Kiefel #4
TTI Thermobonder	3.0	2,860 scf/hr	natural gas, neg.	1
KTI Thermobonder	3.0	2,860 scf/hr	natural gas, neg.	1
Aztec 2 Thermobonder	2.0	1,905 scf/hr	natural gas, neg.	1
Aztec 3 Thermobonder	4.5	4,290 scf/hr	natural gas, neg.	1
Aztec 4 Thermobonder	4.3	4,100 scf/hr	natural gas, neg.	1
Emergency Generator	1.0	7.5 gal/hr	Diesel, 0.05%	n/a

Process Equipment

Equipment	Production Rate	Pollution Control Equipment	Stack #
TTI	11,640 ton/yr	Fiberbed scrubber	1
KTI	11,640 ton/yr	Fiberbed scrubber	1
Aztec 2	11,640 ton/yr	Fiberbed scrubber	1
Aztec 3	2,000 ton/yr	Fiberbed scrubber	1
Aztec 4	13,140 ton/yr	Fiberbed scrubber	1
Kiefel #2	990 ton/yr	None	Kiefel #2
Kiefel #3	990 ton/yr	None	Kiefel #3
Kiefel #4	990 ton/yr	None	Kiefel #4
Clam #1	280 ton/yr	None	None
Clam #2	280 ton/yr	None	Clam #2
AMS	530 ton/yr	None	AMS
Baler #1	6,000 lb/hr	Screen Filter	None
Baler #2	6,000 lb/hr	Screen Filter	None

Bold depicts equipment added in this license.

~~B.~~C. Application Classification

The application for FFT includes the licensing of increased emissions, as well as the installation of new equipment. Therefore, the license is considered to be a renewal of current licensed emission units as well as an amendment to add a new piece of equipment and has been processed through Chapter 115 of the Department's regulations.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

BPT for new units requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the

Department's regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Space Heaters

Space Heaters #1, #2 and #3 each have a heat input capacity less than 10 MMBtu/hr and are therefore not subject to EPA New Source Performance Standards (NSPS) Subpart Dc, for boilers with a heat input of 10 MMBtu/hr or greater and manufactured after June 9, 1989. These units vent inside the building and therefore will not be subject to emission or opacity standards at this time. If, however, these units are vented outside, an amendment to this license will be required to include emission and opacity standards.

C. Molding Line K2 and K4

Molding Line K2 and K4 each have a heat input capacity less than 10 MMBtu/hr and are therefore not subject to EPA New Source Performance Standards (NSPS) Subpart Dc, for boilers with a heat input of 10 MMBtu/hr or greater and manufactured after June 9, 1989. Line K-2 vents through Stack Kiefel #2, and Line K-4 vents through Stack Kiefel #4.

A summary of BPT for the units is discussed below:

1. PM, PM_{10}, SO_2, NO_x, CO and VOC emission rates were based upon AP-42 data dated 7/98 for boilers/heaters firing natural gas and having a heat input of less than 100 MMBtu/hr.
2. Visible emissions from each stack (Kiefel #2 and Kiefel #4) shall be limited to 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

~~B.~~D. Thermobonders

FFT has requested the licensing of another thermobonder line (Aztec 4) similar to the two existing lines. The thermobonders use natural gas as a fuel. Emissions from the non-woven product lines utilize a fiberbed scrubber as pollution control equipment for PM and VOC, which meets the requirement of BACT for the new line and BPT for the existing lines.

SO_2, NO_x, CO, PM and VOC emission rates resulting from combustion and exhausted through the fiberbed scrubber were based upon AP-42 data dated 7/98 for boilers/heaters firing natural gas and having a heat input of less than 100 MMBtu/hr.

In addition to combustion emissions, additional PM and VOC are emitted from FFT's thermobonding ovens. Due to the addition of another manufacturing line, PM and VOC emission limits from the fiberbed scrubber have been increased by 40% over the previous license. The previously licensed PM and VOC limits were derived from testing performed in 1998, 1999 and 2002.

Compliance with the PM/PM_{10} emission limits will be determined by stack testing performed in accordance with EPA Methods 5 and 202.

Compliance with the VOC emission limit will be determined by stack testing performed in accordance with EPA Method 25A modified by using chilled impingers like those used in Method 202 or other method approved by the Department to remove condensable PM. Methane shall be quantified using EPA Method 18 or other method approved by the Department. The quantified methane shall be subtracted from the Method 25A result.

Visible emissions from the fiberbed scrubber stack (Stack #1) shall not exceed 10% opacity on a six-minute block average basis, except for no more than 1 six-minute block average in any one-hour period.

E. Emergency Generator

BPT for the Emergency Generator is the following:

1. Annual hours of operation limit of 500 hours/year.
2. Chapter 106 regulates fuel sulfur content, however the use of 0.05% sulfur by weight fuel is more stringent and shall be used.
3. SO_2 emission data was based on fuel sulfur mass balance.
4. NOx, PM, PM_{10}, CO and VOC emission limits are based upon AP-42 dated 10/96 for diesels up to 600 hp.
5. Opacity from the stack serving the Emergency Generator shall not exceed 20% on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period.

F. Kiefel #3, Clam #2 and AMS

These units are general process units with stacks. Visible emissions from Stack Kiefel #3, Stack Clam #2 and the AMS stack <u>each</u> shall not exceed an opacity of 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.

~~C.~~G. Facility Emission

The following total annual emissions for the facility are based on a 12 month rolling total.

Total Annual Emission for the Facility
(used to calculate the annual license fee)

Pollutant	**Tons/year**
PM	17.8
PM_{10}	17.8
SO_2	0.2
NO_x	20.8
CO	16.5
VOC	35.0

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor source shall be determined on a case-by case basis. Based on the information available in the file, FFT is below the levels required for modeling.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-678-71-J-R/A subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples,

conducting inspections, or examining and copying records relating to emissions (38 MRSA §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [MEDEP Chapter 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
   1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
   2. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[MEDEP Chapter 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[MEDEP Chapter 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department

within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]

SPECIFIC CONDITIONS

(16) **Fiberbed Scrubber System** [MEDEP Chapter 115, BPT]

A. The fiberbed scrubber system shall be limited to the following emission rates:

Pollutant	lb/hr
PM	8.08
PM_{10}	8.08
SO_2	0.01
NOx	1.65
CO	1.38
VOC	11.4

Compliance is based on stack testing. PM and VOC testing shall be performed once during each 5-year term of this license.

PM testing shall be performed in accordance with EPA Methods 5 and 202.

VOC testing shall be performed in accordance with EPA Method 25A modified by using chilled impingers like those used in Method 202 or other method approved by the Department to remove condensable PM. Methane shall be quantified using EPA Method 18 or other method approved by the Department. The quantified methane shall be subtracted from the Method 25A result.

B. Visible emissions from the stack serving the Fiberbed System (Stack #1) shall not exceed 10% opacity on a (6) six-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [MEDEP Chapter 101]

(17) FFT shall operate the thermo-bonding ovens only at times when the fiberbed scrubber is in operation. [MEDEP Chapter 115, BPT]

(18) FFT is limited to an operational limit of 70 million pounds of thermobonder output per year, based on a 12-month rolling total, demonstrated by production records. [MEDEP Chapter 115, BPT]

(19) Visible emissions from the stacks serving Molding Line K-2 (Stack Kiefel #2), Kiefel #3 (Stack Kiefel #3), Molding Line K-4 (Stack Kiefel #4), Clam #2 (Stack Clam #2), and the AMS stack each shall not exceed 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [MEDEP Chapter 101]

(20) Facility-wide natural gas use shall not exceed 359 MMscf/yr based on a 12-month rolling total. Fuel use records shall be maintained on a monthly basis, in addition to the 12-month rolling total. [MEDEP Chapter 115, BPT]

(21) FFT, if required to do so by the Department, shall conduct stack emission testing, and demonstrate compliance with the applicable standard, on any source within 60 days after receipt of notice from the Bureau of Air Quality. [MEDEP Chapter 115, BPT]

(22) Emergency Generator

~~A.~~A. FFT shall limit the operation of the Emergency Generator to 500 hours/year, firing diesel fuel with a maximum sulfur content not to exceed 0.05% by weight. Fuel use records and receipts (showing the quantity of diesel fuel and percent sulfur of the fuel) shall be maintained to demonstrate compliance. Compliance with the hour limit will be determined by a log or an hour meter. [MEDEP Chapter 115, BPT]

~~B.~~B. Emissions from the Emergency Generator shall be limited to the following [MEDEP Chapter 115, BPT]:

Pollutant	lb/hr
PM	0.31
PM_{10}	0.31
SO_2	0.05
NO_x	4.41
CO	0.95
VOC	0.35

~~1.~~C. Visible emissions from the Emergency Generator shall not exceed 30% opacity on a six (6) minute block average basis, except for two (2) six (6) minute block averages in a 3-hour period. [MEDEP Chapter 101]

(23) FFT shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any air emission standard. [MEDEP Chapter 115, BPT]

(24) **Annual Emission Statement** [MEDEP Chapter 137
In accordance with MEDEP Chapter 137, the licensee shall annually report by September 1, to the Department, the information necessary to accurately update the State's emission inventory by means of:

1) A computer program and accompanying instructions supplied by the Department;

or

2) A written emission statement containing the information required in MEDEP Chapter 137.

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017
Phone: (207) 287-2437

(25) FFT shall pay the annual air emission license fee within 30 days of **January 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3. [38 MRSA §353-A]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF , 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: May 19, 2006
Date of application acceptance: May 23, 2006

Date filed with the Board of Environmental Protection: _____

This Order prepared by Mark Roberts, Bureau of Air Quality.